



2208 Warwood Avenue
Wheeling, WV 26003
304.230.1230/Fax: 304.277.1300
www.techlawinc.com

May 26, 2015

DCN No.: TL01-14-10-001-DCN817

Mr. Mike Towle, OSC
US EPA Region 3
1650 Arch Street
Philadelphia, PA 19103-2029

RE: Letter Report: Removal Assessment - Groundwater Sampling Activities – November to December 2014, Queen Street VOC Site, Martinsburg, Berkeley County, WV, Technical Direction Document No. TL01-14-10-001, EPA Contract Number EP-S3-10-04

Dear Mr. Towle:

This letter provides a summary of sampling activities and analytical results relating to groundwater sampling that was conducted at the Queen Street VOC Site (Site), located in Martinsburg, Berkeley County, WV, in November to December, 2014. The work was performed by the Superfund Technical Assessment and Response Team (START) - West contractor, TechLaw, Inc. (TechLaw), as part of a removal site evaluation.

Site Description

The Queen Street VOC site is an unknown source of possible chlorinated volatile organic compound (VOC) contamination suspected to be located near the intersection of North Queen Street and Lambert Street (currently named as Cloud Street), in Martinsburg, WV. The Site is located in a commercial area which includes a gasoline station/convenience store and retail strip mall to the north; a vacant grass lot and vacant business to the east; a restaurant to the south; and a farm supply store to the west across North Queen Street.

Background

The Site was discovered during the course of a Leaking Underground Storage Tank (LUST) investigation (LUST No. 98-034) at a gasoline station located near the intersection of North Queen Street and Lambert Street. Two 12,000-gallon underground storage tanks (UST), originally installed in 1964, were removed and replaced with new upgraded USTs at the gasoline station in 1998. Petroleum contamination and perched water were encountered during the UST removal process. Approximately 674 tons of contaminated soil and 7,000 gallons of water were removed during cleanup activities. As a result, a State regulatory investigation was initiated under WV Leaking UST No. 98-034. Investigative activities related to the LUST removal identified subsurface soil and groundwater contamination consisting of petroleum hydrocarbons, including gasoline range organics (GRO), benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tert-butyl ether (MTBE). Additionally, analysis of soil gas samples indicated the presence of tetrachloroethene (a.k.a., PCE) in two of three soil gas samples in addition to the common gasoline-related constituents (TEC, 2012). PCE, which is not a gasoline-related constituent, was detected in soil gas samples collected in front of the Site building at

concentrations as high as 3,700 parts per billion volume (ppbv) (TEC, 2012). Groundwater samples collected as part of the investigation had only been analyzed for gasoline-related constituents and had not been analyzed for PCE or other chlorinated solvents. The report prepared for the investigation indicated that the groundwater contamination was migrating generally to the northwest (TEC, 2012).

Site Geology and Hydrogeology

The City of Martinsburg lies within the Valley and Ridge Physiographic Province, which is characterized by faulted, folded, and overturned sedimentary rocks of Cambrian to Devonian Age. Past site investigation reports indicate the Site overlies the Ordovician Pinesburg Station Dolomite. The consultants involved in the LUST investigation reported confirming this as the rock type by observing the Site on the 1968 West Virginia Geologic Map and from inspection of drill cuttings during installation of the Site monitoring wells (MWs) (TEC, 2012). The West Virginia Geologic Map describes the Pinesburg Station Dolomite as a “fine to medium crystalline, brown to light gray dolomite, containing nodular chert.” The West Virginia Geologic Map depicts the Pinesburg Station as a narrow band of dolomite flanked to the west by the older Ordovician Rockdale Run Formation (thick bedded limestone and dolomite, also with chert) and to the east by middle Ordovician, undifferentiated rocks and the calcareous shales of the Martinsburg Formation (TEC, 2012).

Previous investigations in the area have reported that bedrock is encountered at depths ranging from 5 to 12 ft. below ground surface (bgs). Boring logs for boreholes during installation of monitoring wells in 2010 depict void spaces at 11 to 12 ft. bgs (in MW-11) and at 10 to 14 ft. bgs (in MW-13). The boring log for another monitoring well (MW-12) indicated the presence of multiple clay-filled voids from near the surface to 29 ft. bgs. Depths to groundwater were reported to range between 7 and 20 ft. below tops of casings in the monitoring wells. A potentiometric map presented in the investigation report depicts a groundwater ridge at the Site extending in a generally northwesterly direction, with flow vectors to the north and west-northwest. Consultants for the property owner surmised that contaminated groundwater from the Site had migrated off site through fractures in the bedrock (TEC, 2012).

The Site is located in a Wellhead Protection Area. The nearest public water source, a spring, is located approximately 1.5 miles from the Site.

Surface runoff from the area drains to the northwest, west, and southwest. A grass-covered storm water swale is located approximately 200 feet (ft.) west of the Site across North Queen Street. The swale drains westward to a drain pipe that extends under the farm supply store parking area, and is believed to eventually empty into Dry Run at a location approximately 1,000 ft. southwest of the Site.

Site Reconnaissance

On November 19, 2014, the TechLaw mobilized to the Site to conduct a site reconnaissance to locate monitoring wells that had been installed during the State LUST investigation and evaluate the wells for potential sampling. START located twelve of the thirteen existing monitoring wells at the Site. Many of the wells could not be accessed due to a special five-sided bolt that was

used to secure the well cover, which required a special tool to open. The following six monitoring wells were accessible: MW-2; MW-6; MW-7; MW-11; MW-12; and MW-13. Two of the accessible wells had a broken or missing well covers (MW-6 and MW-11) and two of the wells located on the west side of North Queen Street had cracked/damaged well pads (MW-12 and MW-7). None of the wells had locks installed on the well caps. TechLaw measured the depth to water (DTW) and depth to bottom (DTB) for all the accessible wells and collected GPS coordinates for all the wells using a hand held GPS unit. Well depth information was used to determine the length of sample tubing that would be required and to estimate the volume of purge water that would be generated during sampling.

Groundwater Sampling Activities

TechLaw prepared a Sampling QA/QC Work Plan (SQAP) to establish sampling procedures for collecting groundwater samples from the accessible monitoring wells and to specify analytical parameters, methods, and quality assurance protocols for the project (TechLaw, 2014). The primary objective of the investigation was to determine if groundwater had been impacted by non-petroleum related contaminants, such a PCE. Following approval of the SQAP by the OSC on November 7, 2014, TechLaw coordinated with EPA Region III Client Services Team (CST) to schedule analytical services.

On December 2, 2014, START mobilized to the Site and initiated groundwater sampling activities. The groundwater sampling was conducted in accordance with the EPA-approved SQAP (TechLaw, 2014). The DTW was measured in each well prior to commencing sampling to determine the well water volume. Traditional three-well-volume purge sampling was conducted using a Monsoon submersible pump, controller, and polytetrafluoroethylene (PTFE)-lined tubing. Three well volumes of water were purged from each well prior to collecting the sample. After purging the required water volume from each well, the flow rate was reduced to approximate low-flow sampling rates (less than 0.5 liter per minute) to collect the samples. A total of 11 water samples were collected, including seven groundwater well samples, three field Quality Control (QC) samples (two rinsate blanks and one trip blank), and one purge water (IDW) sample. The groundwater samples that were collected during the sampling event were preserved as specified in the approved SQAP, packaged, and shipped to a Contract Laboratory Program (CLP) laboratory scheduled through the EPA CST. The groundwater samples were analyzed for Trace Volatile Organics Analysis (TVOA) by CLP Statement of Work (SOW) SOM01.2 at Mitkem Laboratories, North Kingstown, RI. The IDW samples were also analyzed to characterize the waste for disposal. Analytical parameters for disposal included: total VOCs; Toxicity Characteristic Leaching Procedure (TCLP) VOCs, semivolatile organic compounds (SVOC), organochlorine pesticides (PEST), and herbicides (Herb) by CLP SOW SOM01.2 (modified analyses); and TCLP Resource Conservation and Recovery Act (RCRA) metals by CLP SOW ISM01.3 (modified analyses). The organic TCLP analyses were performed by Mitkem Laboratories, North Kingstown, RI. The TCLP metals analyses were performed by Chemtech Consulting Group, Mountainside, NJ. Regional copies of the Chain-of-Custody/Traffic Reports are included in Attachment 1.

Investigation-derived Waste Disposal

Investigation-derived waste (IDW) that was generated during the sampling consisted of monitoring well purge water and equipment decontamination water which were collected in a 55-gallon drum for storage until disposal arrangements could be made. The IDW purge water was determined to be non-hazardous based on analytical results for the parameters presented in the previous paragraph. TechLaw prepared a Request for Proposal (RFP) for transportation and disposal (T&D) of the IDW and solicited bids from multiple vendors. A subcontract for T&D of the IDW was awarded to Capitol Environmental Services, Inc., Newark, DE. On April 28, 2015, the IDW drum was transported to Cycle Chem, Inc., Lewisberry, PA, for disposal. Analytical data for the IDW sample is included in Attachment 3. A copy of the non-hazardous waste manifest is provided in Attachment 4.

Analytical Results

Analytical results for the groundwater samples indicated low level detections of several gasoline-related VOC constituents and other contaminants. Monitoring well MW-2, located nearest the convenience store UST field, had the following VOCs detected: acetone - 21 micrograms per liter ($\mu\text{g/L}$); benzene – 0.20 $\mu\text{g/L}$; cyclohexane – 0.62 $\mu\text{g/L}$; isopropylbenzene (a.k.a., cumene) – 0.22 $\mu\text{g/L}$; and MTBE – 0.97 $\mu\text{g/L}$. All the compounds detected in MW-2 were common gasoline constituents except for acetone. MTBE was also detected in monitoring wells MW-6 at 0.22 $\mu\text{g/L}$ and MW-12 at 0.20 $\mu\text{g/L}$. MW-6 is located in a restaurant parking lot to the south of the convenience store/gasoline station and MW-12 is located on the west side of North Queen Street across from the convenience store/gasoline station. The only other VOCs detected in the samples were chloromethane and chloroform. Chloromethane was detected in MW-13 at 0.16 $\mu\text{g/L}$. Chloroform, a byproduct of disinfection during water treatment, was detected in duplicate samples collected from monitoring well MW-7 at 0.30 $\mu\text{g/L}$ and 0.33 $\mu\text{g/L}$, respectively. The only exceedance of WV De Minimis standards for groundwater observed was for chloroform in monitoring well MW-7, which slightly exceeded the 0.19 $\mu\text{g/L}$ standard. However, the results for chloroform were well below the Maximum Contaminant Level (MCL) for chloroform in drinking water (80 $\mu\text{g/L}$). Analytical results for all VOCs that were detected in at least one sample are presented in Table 1. Complete analytical results are presented in the data validation report provided in Attachment 2.

Conclusions

Analytical results for the EPA sampling indicate only low-level detections of gasoline-related constituents and other VOCs in the monitoring wells sampled as part of this investigation. Chloroform was the only VOC detected which exceeded WV De Minimis standards (0.19 $\mu\text{g/L}$ for groundwater). Chloroform was detected in duplicate samples collected from monitoring well MW-7 at 0.30 $\mu\text{g/L}$ and 0.33 $\mu\text{g/L}$, respectively. These concentrations slightly exceeded the WV De Minimis standard but were well below the MCL of 80 $\mu\text{g/L}$. There were no detections of PCE or its breakdown products in any of the samples.

Mr. Mike Towle

May 26, 2015

Page | 5

References

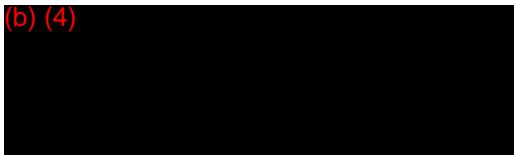
TEC, 2011. Total Environmental Concepts, Inc., *Human Health and Ecological Risk Assessment Report, Sunny's One Stop, Martinsburg, West Virginia*, Alexandria, VA. October 2012.

TechLaw, 2014. TechLaw, Inc., *Sampling QA/QC Work Plan – Removal Site Evaluation, Queen Street VOC Site*, Wheeling, WV. November 7, 2014.

If you have any questions or comments regarding this document, please contact me at (740) 867-0968 or (304) 830-1442 (mobile).

Sincerely,

(b) (4)



START Site Leader

Enclosures:

Figure 1 – Site Location Map

Figure 2 – Site Map

Figure 3 – Well Sample Location Map

Table 1 – Analytical Results for Detected VOCs

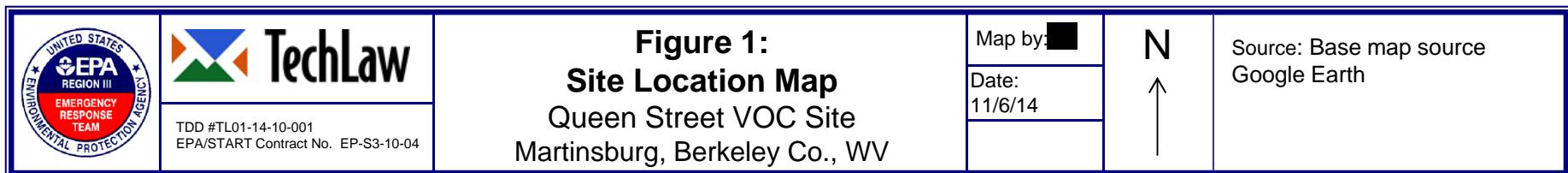
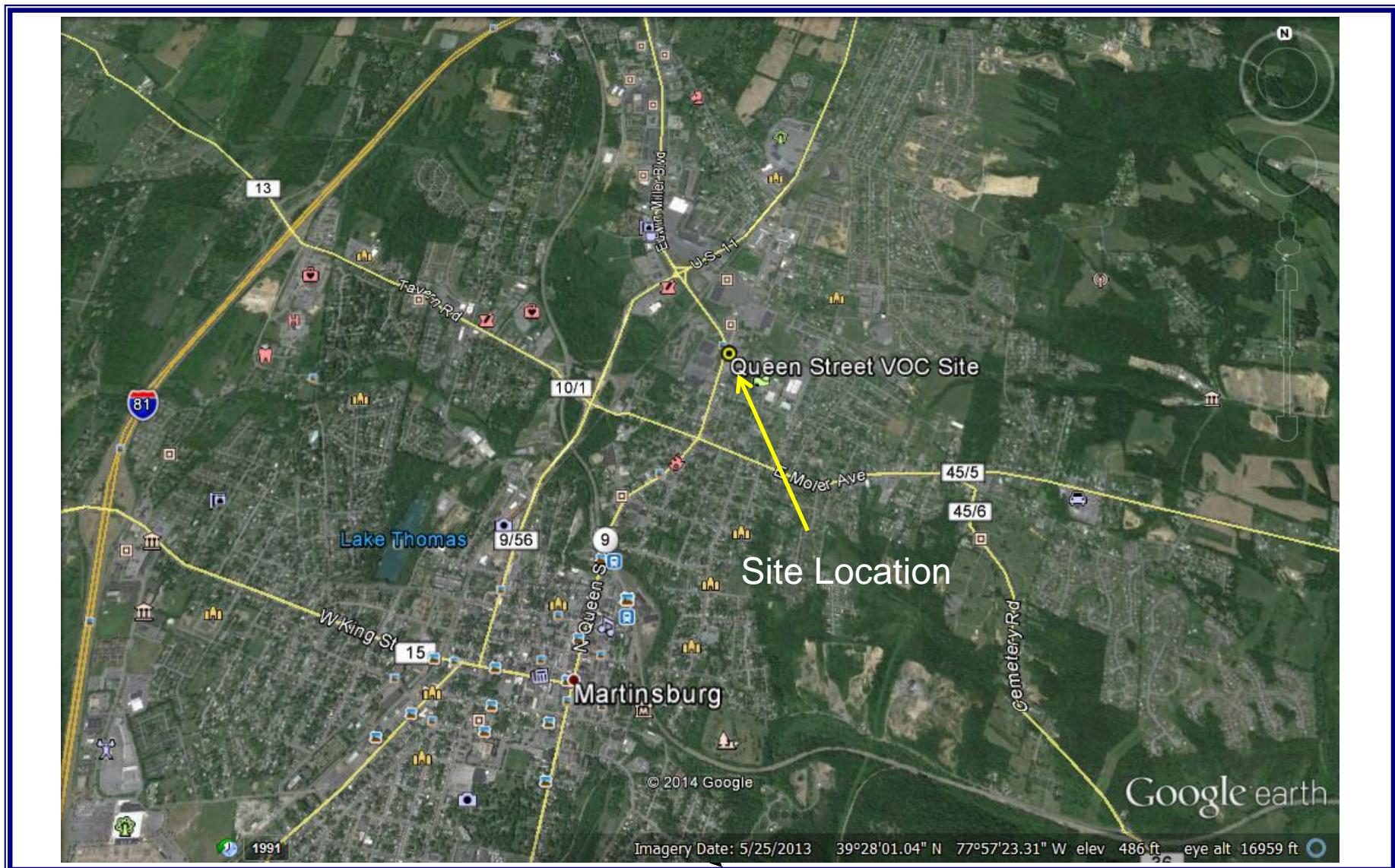
Attachment 1 – Chain-of-Custody/Traffic Report

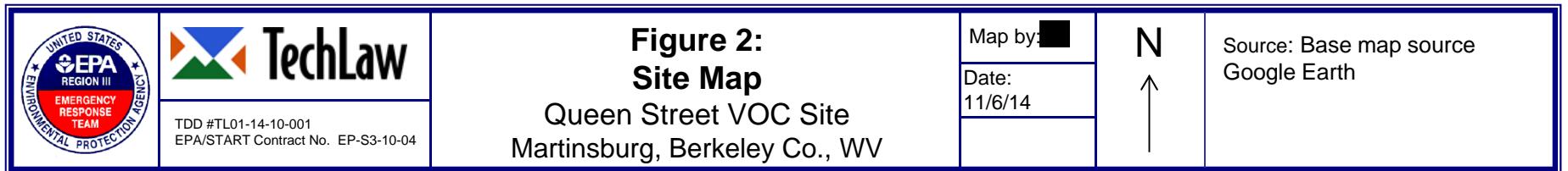
Attachment 2 – Organic Data Validation Report – Case # 44891

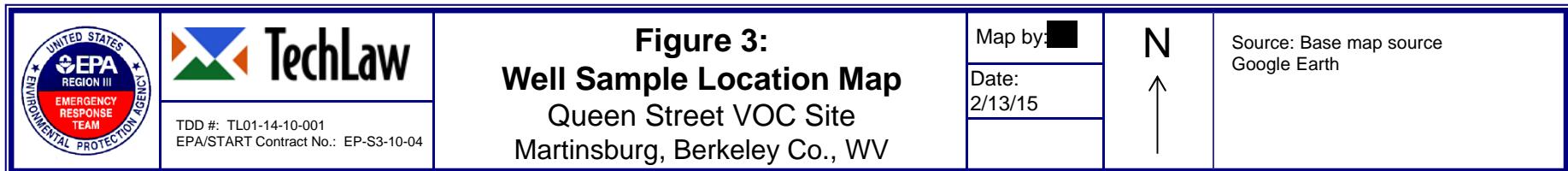
Attachment 3 – Analytical Data for IDW Sample – Case # 44891

Attachment 4 – Non-Hazardous Waste Manifest

FIGURES







TABLE

Table 1 - Analytical Summary of Detected Volatile Organic Compounds
Groundwater Well Sampling
Queen Street VOC Site
December 2-3, 2014
Martinsburg, Berkeley County, West Virginia

Sample #:		C01H2	C01H3		C01H4		C01G9		C01H0		C01H1		C01H8	
Sample Location:		MW-2	MW-6		MW-7		MW-11		MW-12		MW-13		MW-17	
Matrix:		Groundwater	Groundwater		Groundwater Duplicate of MW-17		Groundwater		Groundwater		Groundwater		Groundwater Duplicate of MW-7	
QC:	Units:	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Date collected:		12/3/2014	12/2/2014	12/3/2014	12/3/2014	12/3/2014	12/3/2014	12/3/2014	12/3/2014	12/2/2014	12/2/2014	12/3/2014	12/3/2014	12/3/2014
Parameter	MCL	wv De Minimis	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q	Result	Q
Acetone	NA	12,000	21		5.0	U	5.0	U	5.0	U	5.0	U	5.0	U
Benzene	5	5	0.20	J	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Chloroform	80	0.19	0.50	U	0.50	U	0.30	J	0.50	U	0.50	U	0.50	J
Chloromethane	NA	190	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U	0.16	J
Cyclohexane	NA	12,000	0.62		0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Isopropylbenzene	NA	540	0.22	J	0.50	U	0.50	U	0.50	U	0.50	U	0.50	U
Methyl tert-butyl ether	NA	12	0.97		0.22	J	0.50	U	0.50	U	0.20	J	0.50	U

Key:

MCL = Maximum Contaminant Levels for drinking water as defined in National Primary Drinking Water Regulations.

WV De Minimis = West Virginia Voluntary Remediation Program De Minimis Standards (Table 60-3B, June 1, 2014).

µg/L = Micrograms per liter.

Q = Data validation qualifier.

QC = Quality Control.

Gray highlight indicates a concentration that is at or above the WV De Minimis standard.

Qualifiers:

J = The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).

U = The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.

**ATTACHMENT 1:
CHAIN OF CUSTODY/TRAFFIC REPORT**



USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 44891

R

DAS No:

Region:	3	Date Shipped:	12/3/2014	Chain of Custody Record		Sampler Signature:
Project Code:	CT6993	Carrier Name:	FedEx			
Account Code:	2015T03N303DC6A3YJRS00	Airbill:	8037 1258 1906			
CERCLIS ID:		Shipped to:	Spectrum Analytical, Inc. DBA: Mitkem Laboratories 646 Camp Avenue North Kingstown RI 02852 (401) 732-3400			
Spill ID:	A3YJ			1		
Site Name/State:	Queen Street VOC/WV			2		
Project Leader:	(b) (6)			3		
Action:	Removal Site Evaluation			4		
Sampling Co:	TechLaw, Inc.					

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No/ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
C01G8	Gnd Water/ (b) (6)	L/G	CLP TVOA (21), T_VOAS (21)	31764 (HCL), 31765 (HCL), 31766 (HCL), 31801 (Ice Only), 31802 (Ice Only), 31803 (Ice Only) (6)	IDW-01	S: 12/3/2014 14:40		--
C01G9	Gnd Water/ (b) (6)	L/G	CLP TVOA (21)	31767 (HCL), 31768 (HCL), 31769 (HCL) (3)	MW-11	S: 12/3/2014 10:30		--
C01H0	Ground Water/ (b) (6)	L/G	CLP TVOA (21)	31770 (HCL), 31771 (HCL), 31772 (HCL) (3)	MW-12	S: 12/3/2014 9:30		--
C01H1	Gnd Water/ (b) (6)	L/G	CLP TVOA (21)	31773 (HCL), 31774 (HCL), 31775 (HCL) (3)	MW-13	S: 12/2/2014 15:10		--
C01H2	Ground Water/ (b) (6)	L/G	CLP TVOA (21)	31776 (HCL), 31777 (HCL), 31778 (HCL) (3)	MW-2	S: 12/3/2014 13:27		--
C01H3	Ground Water/ (b) (6)	L/G	CLP TVOA (21)	31779 (HCL), 31780 (HCL), 31781 (HCL) (3)	MW-6	S: 12/2/2014 16:43		--
C01H4	Ground Water/ (b) (6)	L/G	CLP TVOA (21)	31782 (HCL), 31783 (HCL), 31784 (HCL) (3)	MW-7	S: 12/3/2014 11:57		Field Duplicate of MW-17
C01H5	Field QC/ (b) (6)	L/G	CLP TVOA (21)	31785 (HCL), 31786 (HCL), 31787 (HCL) (3)	RB-01	S: 12/2/2014 17:15		Rinsate
C01H6	Field QC/ (b) (6)	L/G	CLP TVOA (21)	31788 (HCL), 31789 (HCL), 31790 (HCL) (3)	RB-02	S: 12/3/2014 11:10		Rinsate
C01H7	Field QC/ (b) (6)	L/G	CLP TVOA (21)	31791 (HCL), 31792 (HCL), 31793 (HCL) (3)	TB-01	S: 12/2/2014 21:10		Trip Blank

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____

CLP TVOA = CLP TCL Trace Volatiles, T_VOAS = TCLP Volatiles by M.A. 1722.5

TR Number: 3-024909862-120314-0001

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

REGION COPY



USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: 44891

DAS No:

R

Region:	3	Date Shipped:	12/3/2014	Chain of Custody Record		Sampler Signature:
Project Code:	CT6993	Carrier Name:	FedEx			
Account Code:	2015T03N303DC6A3YJRS00	Airbill:	8037 1258 1906			
CERCLIS ID:		Shipped to:	Spectrum Analytical, Inc. DBA: Mitkem Laboratories 646 Camp Avenue North Kingstown RI 02852 (401) 732-3400			
Spill ID:	A3YJ			1		
Site Name/State:	Queen Street VOC/WV			2		
Project Leader:	(b) (6)			3		
Action:	Removal Site Evaluation			4		
Sampling Co:	TechLaw, Inc.					

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No/ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
C01H8	Ground Water/ (b) (6)	L/G	CLP TVOA (21)	31804 (HCL), 31805 (HCL), 31806 (HCL) (3)	MW-17	S: 12/3/2014 12:10		Field Duplicate of MW-7

Shipment for Case Complete? N	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____

CLP TVOA = CLP TCL Trace Volatiles, T_VOAS = TCLP Volatiles by M.A. 1722.5

TR Number: 3-024909862-120314-0001

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

REGION COPY



USEPA Contract Laboratory Program
Inorganic Traffic Report & Chain of Custody Record

Case No: 44891

DAS No:

R

Region:	3	Date Shipped:	12/3/2014	Chain of Custody Record		Sampler Signature:
Project Code:	CT6993	Carrier Name:	FedEx			
Account Code:	2015T03N303DC6A3YJRS00	Airbill:	8037 1258 1891			
CERCLIS ID:		Shipped to:	ChemTech Consulting Group (CHEMED) 284 Sheffield Street Mountainside NJ 07092 (908) 789-8900			
Spill ID:	A3YJ		1			
Site Name/State:	Queen Street VOC/WV		2			
Project Leader:	(b) (6)		3			
Action:	Removal Site Evaluation		4			
Sampling Co:	TechLaw, Inc.					

INORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No/ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	ORGANIC SAMPLE No.	QC Type
MC01G8	Ground Water/ (b) (6)	L/G	T_MET (21)	31794 (Ice Only) (1)	IDW-01	S: 12/3/2014 14:40	C01G8	--

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____

T_MET = TCLP Metals (As, Ba, Cd, Cr, Pb, Ag, Se, H)

TR Number: 3-024909862-120314-0002

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

REGION COPY



USEPA Contract Laboratory Program
Organic Traffic Report & Chain of Custody Record

Case No: **44891**

DAS No:

R

Region:	3	Date Shipped:	12/4/2014	Chain of Custody Record		Sampler Signature:
Project Code:	CT6993	Carrier Name:	FedEx			
Account Code:	2015T03N303DC6A3YJRS00	Airbill:	8037 1258 1880			
CERCLIS ID:		Shipped to:	Spectrum Analytical, Inc. DBA: Mitkem Laboratories 646 Camp Avenue North Kingstown RI 02852 (401) 732-3400			
Spill ID:	A3YJ			1		
Site Name/State:	Queen Street VOC/WV			2		
Project Leader:	(b) (6)			3		
Action:	Removal Site Evaluation			4		
Sampling Co:	TechLaw, Inc.					

ORGANIC SAMPLE No.	MATRIX/ SAMPLER	CONC/ TYPE	ANALYSIS/ TURNAROUND	TAG No/ PRESERVATIVE/ Bottles	STATION LOCATION	SAMPLE COLLECT DATE/TIME	INORGANIC SAMPLE No.	QC Type
C01G8	Ground Water/ (b) (6)	L/G	T_SV/P/Her (21)	31795 (Ice Only), 31796 (Ice Only), 31797 (Ice Only), 31798 (Ice Only), 31799 (Ice Only), 31800 (Ice Only) (6)	IDW-01	S: 12/3/2014 14:40		--

Shipment for Case Complete? Y	Sample(s) to be used for laboratory QC:	Additional Sampler Signature(s):	Chain of Custody Seal Number:
Analysis Key:	Concentration: L = Low, M = Low/Medium, H = High T_SV/P/Her = TCLP SVOC/Pest/Herbides-MA 1723.4/168	Type/Designate: Composite = C, Grab = G	Shipment Iced? _____

TR Number: 3-024909862-120314-0003

PR provides preliminary results. Requests for preliminary results will increase analytical costs.

Send Copy to: Sample Management Office, 15000 Conference Center Dr., Chantilly, VA. 20151-3819 Phone 703/818-4200; Fax 703/818-4602

REGION COPY

**ATTACHMENT 2:
ORGANIC DATA VALIDATION REPORT – CASE # 44891**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Environmental Sciences Center
701 Mapes Road
Fort Meade, Maryland 20755-5350

DATE: March 30, 2015

SUBJECT: Region III Data QA Review

FROM: Brandon McDonald 
Region III ESAT PO (3EA22)

TO: Michael Towle
On-Scene Coordinator (3HS31)

Attached is the organic data validation report for the Queen Street VOC site for Case/DAS#44891; SDG#:C01G9 completed by the Region III Environmental Services Assistance Team (ESAT), ICF International, contractor under the direction of Region III EAID.

If you have any questions regarding this review, please call me at (410) 305-2607.

Attachment

cc: (b) (6) [REDACTED] (Tech Law)

TO: #0002 TDF: #0315016

OFFICE OF ANALYTICAL SERVICES AND QUALITY ASSURANCE



Printed on 100% recycled/recyclable paper with 100% post-consumer fiber and process chlorine free.
Customer Service Hotline: 1-800-438-2474



ICF International
ESAT Region 3
US Environmental Protection Agency Environmental Science Center
701 Mapes Road Ft. Meade, MD 20755-5350
Phone 410-305-3011

DATE: March 18, 2015

TO: Brandon McDonald
ESAT Region 3 Project Officer

FROM: (b) (4)
Data Review Chemist

(b) (4)
ESAT Region 3 Team Manager

SUBJECT: Organic Data Validation (S4VEM)
Site: Queen Street VOC
Case: 44891, SDG: C01G9

OVERVIEW

Case 44891, Sample Delivery Group (SDG) C01G9, consisted of eleven (11) aqueous samples including two (2) rinsate blanks and one (1) trip blank analyzed for trace volatile compounds by Spectrum Analytical Incorporated (MITKEM) according to Contract Laboratory Program (CLP) Statement of Work (SOW) SOM01.2 through the Routine Analytical Services (RAS) program.

SUMMARY

Validation of data was performed according to the Organic National Functional Guidelines utilizing the Environmental Data Exchange and Evaluation System (EXES) and is assigned the Superfund Data Validation Label S4VEM (Stage_4_Validation_Electronic_Manual). Areas of concern with respect to data usability are listed below.

NOTES

Compounds detected below Contract Required Quantitation Limits (CRQLs) were qualified "J" unless raised to CRQL and qualified "U" due to blank contamination.

The detected concentration of toluene in sample C01G8, which was <CRQL has, been reported at the CRQL and qualified "U" due to this compound being present in the rinsate and trip blanks associated with this sample.

Accuracy and precision criteria were met by the laboratory in the initial and continuing calibration verification standards associated with the samples in this SDG. No data were qualified based on this finding.

Tentatively Identified Compounds (TICs) were not validated. The “NJ” qualifier is applied to all non-target compounds listed in the sample Summary Report (SSR) and Electronic Data Deliverable (EDD) in addition to other laboratory qualifiers. This is a regional modification to the National Functional Guidelines (NFG) for reporting of TICs. The SSR may not reflect the complete list of TICs included in the EDD. Additionally, the validation level “NV” (Not Validated) is applied to these data.

No manual integrations were performed by the laboratory on any sample or standard in this sample set.

GLOSSARY OF DATA QUALIFIER CODES (ORGANIC)

- U The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.
- J The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).
- B Analyte is presumed to be a blank contamination artifact.
- NJ The analysis indicates the presence of an analyte that has been “tentatively identified” and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.
- R The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
- C This qualifier applies to pesticide and Aroclor results when the identification has been confirmed by Gas Chromatograph/Mass Spectrometer (GC/MS).
- X This qualifier applies to pesticide and Aroclor results when GC/MS analysis was attempted but was unsuccessful.

DCN: ESATR3-2015-V193

Sample Summary Report

Case No:	44891	Contract:	EPW11033	SDG No:	C01G9	Lab Code:	MITKEM
Sample Number:	C01G8	Method:	VOA_Trace	Matrix:	Water	MA Number:	DEFAULT
Sample Location:	IDW-01	pH:	2.0	Sample Date:	12/03/2014	Sample Time:	14:40:00
% Moisture :				% Solids :			

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Acetone	Target	12		ug/L	12		1.0	Yes	S4VEM
Carbon disulfide	Target	0.16	J	ug/L	0.16	J	1.0	Yes	S4VEM
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylene chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	0.15	J	ug/L	0.15	J	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Butanone	Target	24		ug/L	24		1.0	Yes	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Toluene	Target	0.50	U	ug/L	0.26	J	1.0	Yes	S4VEM
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Ethylbenzene	Target	0.19	J	ug/L	0.19	J	1.0	Yes	S4VEM
o-Xylene	Target	0.63		ug/L	0.63		1.0	Yes	S4VEM
m,p-Xylene	Target	1.1		ug/L	1.1		1.0	Yes	S4VEM
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Hexanal	TIC	3.0	NJ	ug/L	3.0	NJ	1.0	Yes	NV
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Case No: 44891	Contract: EPW11033	SDG No: C01G9	Lab Code: MITKEM
Sample Number: C01G9	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: MW-11	pH: 2.0	Sample Date: 12/03/2014	Sample Time: 10:30:00
% Moisture :			% Solids :

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Acetone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylene chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Toluene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Case No: 44891	Contract: EPW11033	SDG No: C01G9	Lab Code: MITKEM
Sample Number: C01H0	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: MW-12	pH: 2.0	Sample Date: 12/03/2014	Sample Time: 09:30:00
% Moisture :			% Solids :

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Acetone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylene chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	0.20	J	ug/L	0.20	J	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Toluene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Case No: 44891	Contract: EPW11033	SDG No: C01G9	Lab Code: MITKEM
Sample Number: C01H1	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: MW-13	pH: 2.0	Sample Date: 12/02/2014	Sample Time: 15:10:00
% Moisture :			% Solids :

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloromethane	Target	0.16	J	ug/L	0.16	J	1.0	Yes	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Acetone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylene chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Toluene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Case No: 44891	Contract: EPW11033	SDG No: C01G9	Lab Code: MITKEM
Sample Number: C01H2	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: MW-2	pH: 2.0	Sample Date: 12/03/2014	Sample Time: 13:27:00
% Moisture :			% Solids :

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Acetone	Target	21		ug/L	21		1.0	Yes	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylene chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	0.97		ug/L	0.97		1.0	Yes	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Cyclohexane	Target	0.62		ug/L	0.62		1.0	Yes	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Benzene	Target	0.20	J	ug/L	0.20	J	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Toluene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	0.22	J	ug/L	0.22	J	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
4,7-Methanoindene, 3a,4,5,6,7,7a-hexahyd	TIC	0.83	NJ	ug/L	0.83	NJ	1.0	Yes	NV
Benzene, 2-ethenyl-1,4-dimethyl-	TIC	0.69	NJ	ug/L	0.69	NJ	1.0	Yes	NV
1H-Indene, 2,3-dihydro-4-methyl-	TIC	0.66	NJ	ug/L	0.66	NJ	1.0	Yes	NV
Benzene, 1-methyl-2-(1-methylethyl)-	TIC	0.78	NJ	ug/L	0.78	NJ	1.0	Yes	NV
Benzene, 1,2,3,5-tetramethyl-	TIC	1.4	NJ	ug/L	1.4	NJ	1.0	Yes	NV
Benzene, propyl-	TIC	0.85	NJ	ug/L	0.85	NJ	1.0	Yes	NV

Case No: 44891	Contract: EPW11033	SDG No: C01G9	Lab Code: MITKEM
Sample Number: C01H3	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: MW-6	pH: 2.0	Sample Date: 12/02/2014	Sample Time: 16:43:00
% Moisture :			% Solids :

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Acetone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylene chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	0.22	J	ug/L	0.22	J	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Toluene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Case No: 44891	Contract: EPW11033	SDG No: C01G9	Lab Code: MITKEM
Sample Number: C01H4	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: MW-7	pH: 2.0	Sample Date: 12/03/2014	Sample Time: 11:57:00
% Moisture :			% Solids :

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Acetone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylene chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroform	Target	0.30	J	ug/L	0.30	J	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Toluene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Case No: 44891	Contract: EPW11033	SDG No: C01G9	Lab Code: MITKEM
Sample Number: C01H5	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: RB-01	pH: 2.0	Sample Date: 12/02/2014	Sample Time: 17:15:00
% Moisture :			% Solids :

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Acetone	Target	5.2		ug/L	5.2		1.0	Yes	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylene chloride	Target	1.0		ug/L	1.0		1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Toluene	Target	0.12	J	ug/L	0.12	J	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Case No: 44891	Contract: EPW11033	SDG No: C01G9	Lab Code: MITKEM
Sample Number: C01H6	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: RB-02	pH: 2.0	Sample Date: 12/03/2014	Sample Time: 11:10:00
% Moisture :			% Solids :

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Acetone	Target	5.3		ug/L	5.3		1.0	Yes	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylene chloride	Target	0.96		ug/L	0.96		1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Toluene	Target	0.11	J	ug/L	0.11	J	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Case No: 44891	Contract: EPW11033	SDG No: C01G9	Lab Code: MITKEM
Sample Number: C01H7	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: TB-01	pH: 2.0	Sample Date: 12/02/2014	Sample Time: 21:10:00
% Moisture :			% Solids :

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Acetone	Target	5.3		ug/L	5.3		1.0	Yes	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylene chloride	Target	1.0		ug/L	1.0		1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Toluene	Target	0.11	J	ug/L	0.11	J	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Case No: 44891	Contract: EPW11033	SDG No: C01G9	Lab Code: MITKEM
Sample Number: C01H8	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: MW-17	pH: 2.0	Sample Date: 12/03/2014	Sample Time: 12:10:00
% Moisture :			% Solids :

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Acetone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylene chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroform	Target	0.33	J	ug/L	0.33	J	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Toluene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Case No: 44891	Contract: EPW11033	SDG No: C01G9	Lab Code: MITKEM
Sample Number: VBLK5B	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: MB-80302	pH: 7.0	Sample Date: 12/05/2014	Sample Time: 14:25:00
% Moisture :			% Solids :

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Acetone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylene chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Toluene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Case No: 44891	Contract: EPW11033	SDG No: C01G9	Lab Code: MITKEM
Sample Number: VHBLK5B	Method: VOA_Trace	Matrix: Water	MA Number: DEFAULT
Sample Location: VHBLK5B	pH: 7.0	Sample Date: 12/05/2014	Sample Time: 21:43:00
% Moisture :		% Solids :	

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
Dichlorodifluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Vinyl chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromomethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichlorofluoromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloro-1,2,2-trifluoroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Acetone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Carbon disulfide	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl acetate	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylene chloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
trans-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methyl tert-butyl ether	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,2-Dichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Butanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Bromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chloroform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,1-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Cyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Carbon tetrachloride	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Benzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Trichloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Methylcyclohexane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromodichloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
cis-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
4-Methyl-2-pentanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Toluene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

Analyte Name	Analyte Type	Validation Result	Validation Flag	Units	Lab Result	Lab Flag	Dilution Factor	Reportable	Validation Level
trans-1,3-Dichloropropene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2-Trichloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Tetrachloroethene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
2-Hexanone	Target	5.0	U	ug/L	5.000000	U	1.0	Yes	S4VEM
Dibromochloromethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromoethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Chlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Ethylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
o-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
m,p-Xylene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Styrene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Bromoform	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
Isopropylbenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,1,2,2-Tetrachloroethane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,3-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,4-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2-Dibromo-3-chloropropane	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,4-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM
1,2,3-Trichlorobenzene	Target	0.50	U	ug/L	0.500000	U	1.0	Yes	S4VEM

**ATTACHMENT 3:
ANALYTICAL DATA FOR IDW SAMPLE – CASE # 44891**

Analytical Results for TCLP Organics

IDW Water

Queen Street VOC Site

Sample ID	CLP #	Matrix	Analysis	CAS_RN	CHEMICAL_NAME	Result	Detect	Lab Qual	Valid. Qual	MDL	RL	UNIT
TCLP VOCs												
IDW-01	C01G8	Water	TCLP VOC	75-01-4	Vinyl chloride	5.0	N	U	U	0.72	5.0	ug/L
IDW-01	C01G8	Water	TCLP VOC	75-35-4	1,1-Dichloroethene	5.0	N	U	U	0.74	5.0	ug/L
IDW-01	C01G8	Water	TCLP VOC	78-93-3	2-Butanone	49	Y			1.6	10	ug/L
IDW-01	C01G8	Water	TCLP VOC	67-66-3	Chloroform	5.0	N	U	U	0.83	5.0	ug/L
IDW-01	C01G8	Water	TCLP VOC	56-23-5	Carbon tetrachloride	5.0	N	U	U	0.81	5.0	ug/L
IDW-01	C01G8	Water	TCLP VOC	71-43-2	Benzene	5.0	N	U	U	0.78	5.0	ug/L
IDW-01	C01G8	Water	TCLP VOC	107-06-2	1,2-Dichloroethane	5.0	N	U	U	0.69	5.0	ug/L
IDW-01	C01G8	Water	TCLP VOC	79-01-6	Trichloroethene	5.0	N	U	U	0.84	5.0	ug/L
IDW-01	C01G8	Water	TCLP VOC	127-18-4	Tetrachloroethene	5.0	N	U	U	0.71	5.0	ug/L
IDW-01	C01G8	Water	TCLP VOC	108-90-7	Chlorobenzene	5.0	N	U	U	0.80	5.0	ug/L
IDW-01	C01G8	Water	TCLP VOC	106-46-7	1,4-Dichlorobenzene	5.0	N	U	U	0.80	5.0	ug/L
TCLP SVOCs												
IDW-01	C01G8	Water	TCLP SVOC	95-48-7	2-Methylphenol	5.0	N	U	U	0.33	5.0	ug/L
IDW-01	C01G8	Water	TCLP SVOC	67-72-1	Hexachloroethane	5.0	N	U	U	0.48	5.0	ug/L
IDW-01	C01G8	Water	TCLP SVOC	98-95-3	Nitrobenzene	5.0	N	U	U	0.44	5.0	ug/L
IDW-01	C01G8	Water	TCLP SVOC	87-68-3	Hexachlorobutadiene	5.0	N	U	U	0.64	5.0	ug/L
IDW-01	C01G8	Water	TCLP SVOC	88-06-2	2,4,6-Trichlorophenol	5.0	N	U	U	0.47	5.0	ug/L
IDW-01	C01G8	Water	TCLP SVOC	95-95-4	2,4,5-Trichlorophenol	5.0	N	U	U	0.41	5.0	ug/L
IDW-01	C01G8	Water	TCLP SVOC	121-14-2	2,4-Dinitrotoluene	5.0	N	U	U	0.34	5.0	ug/L
IDW-01	C01G8	Water	TCLP SVOC	118-74-1	Hexachlorobenzene	5.0	N	U	UJ	0.42	5.0	ug/L
IDW-01	C01G8	Water	TCLP SVOC	87-86-5	Pentachlorophenol	10	N	U	U	0.36	10	ug/L
IDW-01	C01G8	Water	TCLP SVOC	111-11-1	3-Methylphenol + 4-Methylphenol	5.0	N	U	U	0.35	5.0	ug/L
IDW-01	C01G8	Water	TCLP SVOC	1319-77-3	Total Cresol	5.0	N	U	U	0.80	5.0	ug/L
IDW-01	C01G8	Water	TCLP SVOC	110-86-1	Pyridine	5.0	N	U	UJ	5.0	5.0	ug/L
TCLP Pesticides												
IDW-01	C01G8	Water	TCLP Pest	58-89-9	gamma-BHC (Lindane)	0.050	N	U	U	0.0033	0.050	UG/L
IDW-01	C01G8	Water	TCLP Pest	76-44-8	Heptachlor	0.050	N	U	U	0.0043	0.050	UG/L
IDW-01	C01G8	Water	TCLP Pest	1024-57-3	Heptachlor epoxide	0.050	N	U	U	0.0042	0.050	UG/L
IDW-01	C01G8	Water	TCLP Pest	72-20-8	Endrin	0.10	N	U	U	0.0073	0.10	UG/L
IDW-01	C01G8	Water	TCLP Pest	72-43-5	Methoxychlor	0.50	N	U	U	0.033	0.50	UG/L
IDW-01	C01G8	Water	TCLP Pest	8001-35-2	Toxaphene	5.0	N	U	U	0.091	5.0	UG/L
IDW-01	C01G8	Water	TCLP Pest	5103-71-9	alpha-Chlordane	0.050	N	U	U	0.0042	0.050	UG/L
IDW-01	C01G8	Water	TCLP Pest	5103-74-2	gamma-Chlordane	0.050	N	U	U	0.0047	0.050	UG/L

Analytical Results for TCLP Herbicides
IDW Water
Queen Street VOC Site

Sample ID	CLP #	matrix	Analysis	CAS RN	Analyte	RESULT	REPORT-ABLE	DETECT	LAB QUAL	VALID. QUAL	MDL	RL	UNIT
IDW-01	C01G8	Water	TCLP Herb	93-72-1	2,4,5-TP (Silvex)	0.10	YES	N	U	U	0.026	0.10	ug/L
IDW-01	C01G8	Water	TCLP Herb	94-75-7	2,4-D	0.50	YES	N	U	U	0.14	0.50	ug/L

Analytical Results for TCLP Metals

IDW Water

Queen Street VOC Site

Sample ID	CLP #	Matrix	Analysis ¹	CAS_RN	Chemical Name	Result	Detect	Lab Qual.	Valid. Qual	MDL	RL	Unit
IDW-01	MC01G8	Water	TCLP Metals	7429-90-5	Aluminum	200	Y	JN	UJ	15.4	200	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-36-0	Antimony	60.0	N	U	U	2.7	60.0	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-38-2	Arsenic	10.0	N	U	U	2.1	10.0	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-39-3	Barium	134	Y	JN	J	2.8	200	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-41-7	Beryllium	5.0	Y	JN	UJ	0.64	5.0	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-43-9	Cadmium	5.0	N	U	U	0.18	5.0	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-70-2	Calcium	89000	Y			59.9	5000	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-47-3	Chromium	10.0	Y	UN	U	0.51	10.0	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-48-4	Cobalt	1.3	Y	J	J	0.86	50.0	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-50-8	Copper	6.1	Y	JN	J	3.4	25.0	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7439-89-6	Iron	100	Y	JN	UJ	10.7	100	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7439-92-1	Lead	10.0	N	U	U	1.6	10.0	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7439-95-4	Magnesium	46900	Y			63.2	5000	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7439-96-5	Manganese	776	Y	N	J	0.75	15.0	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7439-97-6	Mercury	0.20	Y	J	U	0.0079	0.20	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-02-0	Nickel	40.0	Y	J	U	1.3	40.0	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-09-7	Potassium	5000	N	U	U	105	5000	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7782-49-2	Selenium	35.0	N	U	U	2.8	35.0	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-22-4	Silver	10.0	Y	J	U	0.38	10.0	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-28-0	Thallium	25.0	N	U	U	2.0	25.0	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-62-2	Vanadium	50.0	Y	UN	U	3.7	50.0	ug/L
IDW-01	MC01G8	Water	TCLP Metals	7440-66-6	Zinc	67.9	Y			3.5	60.0	ug/L

Notes:

1. Sample was analyzed for all TAL metals

Yellow cell indicates the analyte is a TCLP metal.

Analytical Results for Total VOCs

IDW Water

Queen Street VOC Site

Sample ID	CLP #	Matrix	CAS_RN	CHEMICAL_NAME	RESULT	RESULT TYPE	REPORT-ABLE	DETECT	LAB QUAL	VALID. QUAL	MDL	RL	UNIT
IDW-01	C01G8	Water	75-71-8	Dichlorodifluoromethane	0.50	TRG	YES	N	U	U	0.095	0.50	ug/L
IDW-01	C01G8	Water	74-87-3	Chloromethane	0.50	TRG	YES	N	U	U	0.067	0.50	ug/L
IDW-01	C01G8	Water	75-01-4	Vinyl chloride	0.50	TRG	YES	N	U	U	0.11	0.50	ug/L
IDW-01	C01G8	Water	74-83-9	Bromomethane	0.50	TRG	YES	N	U	U	0.12	0.50	ug/L
IDW-01	C01G8	Water	75-00-3	Chloroethane	0.50	TRG	YES	N	U	U	0.098	0.50	ug/L
IDW-01	C01G8	Water	75-69-4	Trichlorofluoromethane	0.50	TRG	YES	N	U	U	0.096	0.50	ug/L
IDW-01	C01G8	Water	75-35-4	1,1-Dichloroethene	0.50	TRG	YES	N	U	U	0.12	0.50	ug/L
IDW-01	C01G8	Water	76-13-1	1,1,2-Trichloro-1,2,2-trifluo	0.50	TRG	YES	N	U	U	0.12	0.50	ug/L
IDW-01	C01G8	Water	67-64-1	Acetone	12	TRG	YES	Y			1.0	5.0	ug/L
IDW-01	C01G8	Water	75-15-0	Carbon disulfide	0.16	TRG	YES	Y	J	J	0.066	0.50	ug/L
IDW-01	C01G8	Water	79-20-9	Methyl acetate	0.50	TRG	YES	N	U	U	0.068	0.50	ug/L
IDW-01	C01G8	Water	75-09-2	Methylene chloride	0.50	TRG	YES	N	U	U	0.080	0.50	ug/L
IDW-01	C01G8	Water	156-60-5	trans-1,2-Dichloroethene	0.50	TRG	YES	N	U	U	0.089	0.50	ug/L
IDW-01	C01G8	Water	1634-04-4	Methyl tert-butyl ether	0.15	TRG	YES	Y	J	J	0.11	0.50	ug/L
IDW-01	C01G8	Water	75-34-3	1,1-Dichloroethane	0.50	TRG	YES	N	U	U	0.095	0.50	ug/L
IDW-01	C01G8	Water	156-59-2	cis-1,2-Dichloroethene	0.50	TRG	YES	N	U	U	0.093	0.50	ug/L
IDW-01	C01G8	Water	78-93-3	2-Butanone	24	TRG	YES	Y			0.95	5.0	ug/L
IDW-01	C01G8	Water	74-97-5	Bromochloromethane	0.50	TRG	YES	N	U	U	0.12	0.50	ug/L
IDW-01	C01G8	Water	67-66-3	Chloroform	0.50	TRG	YES	N	U	U	0.13	0.50	ug/L
IDW-01	C01G8	Water	71-55-6	1,1,1-Trichloroethane	0.50	TRG	YES	N	U	U	0.11	0.50	ug/L
IDW-01	C01G8	Water	110-82-7	Cyclohexane	0.50	TRG	YES	N	U	U	0.065	0.50	ug/L
IDW-01	C01G8	Water	56-23-5	Carbon tetrachloride	0.50	TRG	YES	N	U	U	0.068	0.50	ug/L
IDW-01	C01G8	Water	71-43-2	Benzene	0.50	TRG	YES	N	U	U	0.077	0.50	ug/L
IDW-01	C01G8	Water	107-06-2	1,2-Dichloroethane	0.50	TRG	YES	N	U	U	0.067	0.50	ug/L
IDW-01	C01G8	Water	79-01-6	Trichloroethene	0.50	TRG	YES	N	U	U	0.093	0.50	ug/L
IDW-01	C01G8	Water	108-87-2	Methylcyclohexane	0.50	TRG	YES	N	U	U	0.15	0.50	ug/L
IDW-01	C01G8	Water	78-87-5	1,2-Dichloropropane	0.50	TRG	YES	N	U	U	0.13	0.50	ug/L
IDW-01	C01G8	Water	75-27-4	Bromodichloromethane	0.50	TRG	YES	N	U	U	0.089	0.50	ug/L
IDW-01	C01G8	Water	10061-01-5	cis-1,3-Dichloropropene	0.50	TRG	YES	N	U	U	0.086	0.50	ug/L
IDW-01	C01G8	Water	108-10-1	4-Methyl-2-pentanone	5.0	TRG	YES	N	U	U	0.97	5.0	ug/L
IDW-01	C01G8	Water	108-88-3	Toluene	0.26	TRG	YES	Y	J	J	0.074	0.50	ug/L
IDW-01	C01G8	Water	10061-02-6	trans-1,3-Dichloropropene	0.50	TRG	YES	N	U	U	0.14	0.50	ug/L
IDW-01	C01G8	Water	79-00-5	1,1,2-Trichloroethane	0.50	TRG	YES	N	U	U	0.10	0.50	ug/L
IDW-01	C01G8	Water	127-18-4	Tetrachloroethene	0.50	TRG	YES	N	U	U	0.13	0.50	ug/L
IDW-01	C01G8	Water	591-78-6	2-Hexanone	5.0	TRG	YES	N	U	U	0.85	5.0	ug/L
IDW-01	C01G8	Water	124-48-1	Dibromochloromethane	0.50	TRG	YES	N	U	U	0.094	0.50	ug/L

Analytical Results for Total VOCs

IDW Water

Queen Street VOC Site

IDW-01	C01G8	Water	106-93-4	1,2-Dibromoethane	0.50	TRG	YES	N	U	U	0.14	0.50	ug/L
IDW-01	C01G8	Water	108-90-7	Chlorobenzene	0.50	TRG	YES	N	U	U	0.085	0.50	ug/L
IDW-01	C01G8	Water	100-41-4	Ethylbenzene	0.19	TRG	YES	Y	J	J	0.057	0.50	ug/L
IDW-01	C01G8	Water	95-47-6	o-Xylene	0.63	TRG	YES	Y			0.12	0.50	ug/L
IDW-01	C01G8	Water	179601-23-1	m,p-Xylene	1.1	TRG	YES	Y			0.071	0.50	ug/L
IDW-01	C01G8	Water	100-42-5	Styrene	0.50	TRG	YES	N	U	U	0.070	0.50	ug/L
IDW-01	C01G8	Water	75-25-2	Bromoform	0.50	TRG	YES	N	U	U	0.096	0.50	ug/L
IDW-01	C01G8	Water	98-82-8	Isopropylbenzene	0.50	TRG	YES	N	U	U	0.092	0.50	ug/L
IDW-01	C01G8	Water	79-34-5	1,1,2,2-Tetrachloroethane	0.50	TRG	YES	N	U	U	0.14	0.50	ug/L
IDW-01	C01G8	Water	541-73-1	1,3-Dichlorobenzene	0.50	TRG	YES	N	U	U	0.084	0.50	ug/L
IDW-01	C01G8	Water	106-46-7	1,4-Dichlorobenzene	0.50	TRG	YES	N	U	U	0.067	0.50	ug/L
IDW-01	C01G8	Water	95-50-1	1,2-Dichlorobenzene	0.50	TRG	YES	N	U	U	0.075	0.50	ug/L
IDW-01	C01G8	Water	96-12-8	1,2-Dibromo-3-chloropropane	0.50	TRG	YES	N	U	U	0.23	0.50	ug/L
IDW-01	C01G8	Water	120-82-1	1,2,4-Trichlorobenzene	0.50	TRG	YES	N	U	U	0.095	0.50	ug/L
IDW-01	C01G8	Water	87-61-6	1,2,3-Trichlorobenzene	0.50	TRG	YES	N	U	U	0.14	0.50	ug/L

Highlighted cells indicate detected analytes.

**ATTACHMENT 4:
NON-HAZARDOUS WASTE MANIFEST**

NON-HAZARDOUS WASTE MANIFEST		1. Generator ID Number NOT REQUIRED	2. Page 1 of 1	3. Emergency Response Phone	4. Waste Tracking Number USEPA 042815	
5. Generator's Name and Mailing Address US EPA Region III 1850 Arch Street, Philadelphia, PA 19103 (215) 287-2443		Generator's Site Address (if different than mailing address) US EPA Region III - Queen St. VOC Site Intersection of Queen St. and Cloud St., Marlinton, WV 25411 (215) 287-2443				
Generator's Phone:						
6. Transporter 1 Company Name		U.S. EPA ID Number NOT REQUIRED				
7. Transporter 2 Company Name		U.S. EPA ID Number				
8. Designated Facility Name and Site Address Cycle Chem, Inc. - Lewisberry 560 Industrial Drive, Lewisberry, PA 17339 (717) 938-4700		U.S. EPA ID Number NOT REQUIRED				
Facility's Phone:						
9. Waste Shipping Name and Description		10. Containers		11. Total Quantity	12. Unit Wt./Vol.	
1. Non RCRA, Non DOT Regulated Liquid (Purge Water)		No.	Type	55	G	
2.						
3.						
4.						
13. Special Handling Instructions and Additional Information 1 App# - Seq-A Product-O/W						
14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.						
Generator's/Officer's Printed/Typed Name MICHAEL TOWLE		Signature (b) (6)		Month	Day	Year
				04	28	15
15. International Shipments <input type="checkbox"/> Import to U.S.		<input type="checkbox"/> Export from U.S.		Port of entry/exit:		
Transporter Signature (for exports only):				Date leaving U.S.:		
16. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 (b) (6)		Signature (b) (6)		Month	Day	Year
				04	28	15
Transporter 2 Printed/Typed Name		Signature		Month	Day	Year
17. Discrepancy						
17a. Discrepancy Indication Space <input type="checkbox"/> Quantity		<input type="checkbox"/> Type		<input type="checkbox"/> Residue	<input type="checkbox"/> Partial Rejection	<input type="checkbox"/> Full Rejection
Manifest Reference Number:						
17b. Alternate Facility (or Generator)		U.S. EPA ID Number				
Facility's Phone:						
17c. Signature of Alternate Facility (or Generator)		Month Day Year				
18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a						
Printed/Typed Name (b) (6)		Signature (b) (6)		Month	Day	Year
				04	29	15
						DESIGNATED FACILITY TO GENERATOR